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Supreme Court of the United States

FEDERAL ENERGY REGULATORY COMMISSION,
Petitioner,

v.

ELECTRIC POWER SUPPLY ASSOCIATION, *et al.*,
Respondents.

ENERNOC, INC., *et al.*,
Petitioners,

v.

ELECTRIC POWER SUPPLY ASSOCIATION, *et al.*,
Respondents.

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE D.C. CIRCUIT

BRIEF *AMICI CURIAE* IN SUPPORT OF PETITIONERS FOR CONSERVATION LAW FOUNDATION, ENVIRONMENTAL DEFENSE FUND, THE ENVIRONMENTAL LAW AND POLICY CENTER OF THE MIDWEST, NATURAL RESOURCES DEFENSE COUNCIL AND SIERRA CLUB

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Statement of Interest*

Amici, leading nongovernmental organizations committed to protecting public health and natural resources, are described in the Addendum. We participate here, as we did before the Commission and the court below, because FERC Order 745 advances important national energy policy goals – ensuring an adequate, affordable, and reliable electric power system – in a manner that is consistent with protecting public health and the environment. Wholesale demand response makes markets more efficient, saves consumers billions of dollars, and renders the bulk power system more stable and reliable. But it also avoids the need to build and operate costly and polluting generating plants while supporting the integration of cleaner and cheaper energy resources into the increasingly dynamic and interconnected power grid. Indeed, as Congress has explicitly recognized, demand response resources play an important part in the Nation's rapidly advancing transition to a modern, economical, and sustainable energy system. *Amici* support this transition and the role demand response plays.

Amici are deeply concerned by the D.C. Circuit's holding that federal law prohibits realization of these benefits, on the theory that demand response is inherently and exclusively a retail product that has no place in FERC-regulated organized markets. As

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* Pursuant to Rule 37.6, counsel certifies that this brief was not authored in whole or in part by counsel for any party and that no person or entity other than *Amici* or counsel made a monetary contribution to its preparation or submission. Counsel for all parties have consented to its filing.

petitioners demonstrate, and as we elaborate below, that theory rests on a basic misunderstanding of how demand response participates in wholesale markets and the unique and vital functions it serves. *Amici* also actively support *retail-level* demand-response programs. We believe, as do state regulators themselves, that wholesale-level demand response complements rather than threatens these state initiatives.

We are further concerned about the implications of the D.C. Circuit's decision for the allocation of energy regulation responsibility more generally. The decision rejected FERC's restrained and pragmatic approach to fulfilling its statutory duty in favor of one that defines "matters" at an implausibly high level of generality and then assigns them exclusively to either State or federal regulators. That approach is contrary to this Court's precedent and unsupported by the statute. It is especially ill-suited to the practical realities of a rapidly transforming electric power system.

Introduction and Summary of Argument

Order 745 is a lawful, appropriate and important exercise of FERC's responsibility under the Federal Power Act to secure "just and reasonable" wholesale rates. The Order addresses the compensation practices of Regional Transmission Organizations and Independent System Operators – FERC-jurisdictional "public utilities" – in a manner that is entirely consistent with the "scheme [of that statute] as a whole," Pet. App. 9a n.1, and with the Commission's longstanding effort to promote market efficiency and open competition as a means of discharging its core Federal Power Act

responsibilities. Order 745 and its precursors addressing demand response implement federal legislation expressly recognizing the benefits of "participation of demand response" resources in FERC-regulated wholesale markets and committing the Nation to reducing barriers obstructing their realization.

The benefits of demand response participation in wholesale markets extend beyond the market efficiency and operational performance imperatives Order 745 addresses. Wholesale demand response provides important public health and environmental benefits, which are not accounted for in wholesale market prices, by avoiding the need to operate plants that are both dirty and costly; by postponing or avoiding construction of power plants and transmission lines; and by helping the grid to reliably integrate inexpensive and clean renewable energy resources.

Indeed, the diverse benefits and capabilities of demand response are increasingly important, as the Nation accelerates its transition to a flexible, dynamic modern grid and as the power system makes fuller and more efficient use of renewable energy resources. Accordingly, Congress, far from relegating demand response resources to the sidelines, has recognized that these resources can and must play an important role in the Nation's energy future.

Without disputing that Order 745 addressed market practices that directly affect wholesale rates under FERC's jurisdiction, the majority opinion below nonetheless held Order 745 "ultra vires," based on what were presented as "simpl[e]" and self-evident realities: that demand response (1) is intrinsically

"part of the retail market" and only that "market," and (2) is, on that basis, subject to regulation only by States.

Neither proposition is tenable. Order 745's central premise – that demand response resources' participation in wholesale markets is distinctly beneficial – is one that *Congress* has explicitly endorsed. There is nothing "metaphysical" about wholesale demand response or how resources participate in wholesale markets. Far from only "declining to act," demand response resources must make investments and binding contractual commitments, and they participate as a resource, competing with others capable of providing comparable market and system benefits. Indeed, the basic misunderstandings animating the decision below are especially consequential, as Congress has enacted laws envisioning an integral place for demand response resources in the Nation's future electricity landscape.

The statutory basis of the decision is equally infirm. In any circumstances, the reference, in a prefatory provision of the Federal Power Act, to unspecified "matters subject to [state] regulation" would fall vastly short of the "direct" and "precise" expression of congressional intent that this Court's precedents would require to adjudge Order 745 unlawful. But here Congress *has* spoken. It has affirmed, in statutory language respondents cannot blunt or evade, the legitimacy and importance of demand response "*participation*" in FERC-regulated markets.

Order 745's allocation of regulatory authority is lawful and sensible. The Order recognizes the

benefits of both retail- and wholesale-level demand response and assigns oversight responsibility precisely as one would expect: FERC regulates wholesale market compensation and cost allocation practices that appear in ISO/RTO tariffs, while States regulate retail-level activities. Indeed, Order 745 not only leaves untouched States' control of retail programs, it respects their decisions to permit (or not) residents' *wholesale market* demand response participation. Thus, while FERC properly rejected the notion that Section 201(a) preempts its core wholesale market responsibilities, Order 745 takes account of the policies underlying that provision, *along with* those animating the Section 205 and 206 grants of authority and Congress's recently enacted policy statements. FERC's restrained approach to jurisdiction is consonant with the Court's precedent and well suited to the realities of a bulk power system and a regulatory landscape that are increasingly complex and interconnected. And FERC's regulation accomplishes what the decision below fails to: it describes a readily ascertainable jurisdictional line.

To the extent the substance of FERC's exercise of its authority is before the Court, Order 745 should be upheld. The basic principles underlying Order 745 are not only those of FERC's earlier demand response orders, they are the familiar linchpins of the Commission's general competition-focused regulatory approach: that markets should be organized to meet particular system needs and structured to account for real-world conditions; that auctions should be broadly open to all resources that are capable of performing; and that compensation should generally be based on the market-clearing price, irrespective of successful bidders' costs or auction bids. Indeed, *respondents*

have highlighted these features in defending FERC-regulated *capacity* markets in which they participate (alongside demand response resources) and receive compensation.

While demand response and generation resources are not *identically* situated, they are comparable in the respects most relevant to system operators. And there are important ways that the former are *more* valuable than generator competitors. In energy markets under conditions of peak demand, demand response resources reduce transmission congestion that can threaten service; and *generation* resources that clear the market (especially during peaks) impose costs, in the form of health and environmental harms, that market-clearing demand response resources do not. Whatever the theoretical merit of disputed claims that LMP is "overcompensation" that could yield "too much" curtailment, the record before FERC does not support such claims. And it is plain that Congress, having repeatedly legislated to broaden opportunities for demand response participation, does not take that view.

ARGUMENT

I. Order 745 and its Predecessors Correctly Recognize the Distinct Importance of Demand Response Participation as Resources in *Wholesale* Markets

Order 745 and FERC's prior, related actions respond to market problems that flow from characteristics distinct to electricity as a commodity and the bulk power system. In particular, the historic approach to balancing supply and demand – building facilities large enough to serve maximum load and

bringing increasingly costly generation sources online to meet peaks – is inefficient and can yield intolerably high wholesale prices. When demand response resources participate in wholesale energy markets and "flatten the ... load profile," Pet. App. 60a, they lower transmission congestion and make it more likely that market-clearing auction prices will be just and reasonable.

Similar benefits have been realized when ISOs and RTOs have, with FERC approval, permitted demand response participation in their capacity markets, avoiding unnecessary and costly new plant construction, and in their ancillary services markets, where, *inter alia*, demand response resources perform as reserves, serving a need that would otherwise be met by maintaining generating plants idle or under-used to respond to unexpected system events. These benefits of wholesale market demand response have proven to be dramatic and are largely uncontested. See Pet. App. 156a (Commissioner Moeller); Monitoring Analytics, Analysis of the 2017/2018 RPM Base Residual Auction 6 (2014) (estimating $9 billion in savings from demand response participation in single capacity auction).[1]

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[1] These benefits might be likened to those from the auction mechanism through which airlines compensate passengers who volunteer to be "bumped" when the number of flyers at the gate exceeds the number of available seats on an aircraft. As with demand response, the passenger's willingness to shift her travel to a different, non-peak time can save the operator — and ultimately fellow customers — sums of money vastly exceeding the amount of the travel voucher, given the "supply side" alternatives (*e.g.*, flying a second plane or limiting advance sales to the number of seats, notwithstanding significant and well-known "no-show" rates). See Julian L. Simon, *The Airline*

The premises underlying FERC's actions are that these benefits derive from demand response *participation* as a resource in these markets; that economic and regulatory barriers can and do obstruct such participation; and that wholesale demand response is compatible with, and not a threat to, initiatives at the State or utility level. See Pet. App. 138a, 223a. Notably, each of these has been endorsed by Congress in the time since FERC first approved ISO and RTO tariffs providing for demand response participation in the early 2000s. Numerous enactments affirm the importance of demand response, see, *e.g.*, 42 U.S.C. § 17381(4) (Smart Grid Modernization); *id.* § 8279 ("Action Plan for Demand Response"). The Energy Policy Act of 2005 (EPAct 2005) included both provisions supporting state programs and ones committing the United States to eliminating "unnecessary barriers to demand response participation in energy, capacity and ancillary service markets," and to ensuring that the

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Oversales Auction Plan, J. Transp. Econ. & Pol'y 319, 319 (1994) (collecting evidence that such mechanisms "raise[] the capacity level at which planes fly, hence increasing their efficiency and lowering price"). It would miss the point to say in these circumstances that the passenger "participated only by declining to act."

Two further similarities might be noted: First, the benefits of this demand-side response occur even though *retail* travel prices already reflect supply and demand, *e.g.*, tickets are much cheaper at off-peak times; second, though this mechanism – like demand response in electricity markets – did not arise for environmental reasons, flying a single plane at full capacity (and having the "bumpees" ride on a scheduled later flight) is much less polluting than adding a flight to transport them at the original departure time. See pp. 14-17, *infra*.

benefits from such participation be shared among all customers in "the same regional electricity entity." Pub. L. No. 109-58, § 1252(f), 16 U.S.C. § 2642 note.

While respondents do not dispute that demand response lowers wholesale energy rates, see Pet. App. 7a, they nonetheless maintain, as did the decision below, that these effects reflect no more than the truism that a diminution in retail demand for any product will reduce its wholesale price. According to the D.C. Circuit's majority, wholesale demand response is a "fiction" and demand response resources "'participate' in wholesale markets only by declining to act," *id.* 6a. See also *id.* 8a, 11a (portraying Order 745 as "luring" into wholesale markets resources that are "simply... part of the retail market," in order "to create [FERC] jurisdiction").[2]

These assertions are fundamentally mistaken, and they reflect serious misunderstandings of how organized wholesale markets operate and how demand response participates in them.

There is nothing problematic, let alone "metaphysical," Pet. App. 6a, about the distinction Order 745 recognizes, between demand response participation in organized wholesale markets and in retail price-responsive electricity demand programs regulated by States. To be sure, not consuming energy at a particular time is a common denominator of *all* demand response (and accordingly a central

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[2] Respondents make no effort to ratchet down the D.C. Circuit's skeptical tone, placing "*demand response*" within scare quotes more than thirty times in their Brief in Opposition, to the point of noting respondent APPA's *own* experience "sponsor[ing] ... 'demand response' programs," Br. Opp. iii.

focus of FERC's – supposedly inculpatory – "single definition," Pet. App. 5a (citing 18 C.F.R. § 35.28(b)(4)).[3] But wholesale market participation entails much more than "only" inaction. In order to bid into auctions in FERC-regulated markets, demand response resources must satisfy "rigorous performance characteristics (response time and minimum load size), [subject to] special contractual and compensation mechanisms, robust measurement and verification methodology, and high-speed communications interface to enable automatic control." Jaquelin Cochran, et al., Market Evolution: Wholesale Electricity Market Design for 21st Century Power Systems at 25 (2013). These requirements entail often-substantial investments in control, metering, and verification technology.[4]

Even more important, where retail-level demand response programs typically allow participants to "decline to act" (or not) when confronted with a price signal, Pet. App. 6a, wholesale demand response is a "'firm' resource[]"and is "dispatchable," Hurley, et al., Demand Response as a Power System Resource (2013) at 15. In wholesale markets, system-wide

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[3] The opinion below seemed to assume that the inclusive definition itself proved that Order 745's distinction was "fictional," Pet. App. 6a, and indeed that FERC was without authority. But, as the Court explained last Term, it is not at all unusual for a "single physical action" or "activity" to be subject to multiple laws, both state and federal. *Oneok, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1600 (2015). See pp. 20-21, *infra*.

[4] Time-shifting is itself a cost to those who provide wholesale demand response and sometimes a direct monetary one, as when a manufacturer has to pay employees extra to reschedule shifts. See Private Petrs. Br. 55.

decisions are made in reliance on binding, contractual commitments to reduce electricity use at particular points in time. Thus, demand response resources participate in these markets the same way other resources do: by efficiently and reliably meeting the identified system need that the particular market is designed to meet – whether maintaining the stability of the grid, in ancillary services markets, or ensuring the real-time or future balance of supply and demand, in energy and capacity markets, respectively.

Wholesale market participation enables demand response to have a "much larger price impact," because resources help to "set the market clearing price" and thereby reduce costs for consumers region-wide. Hurley at 16. Participation in multistate wholesale markets likewise enables resources to be "compensated for the full system value of their demand reduction," *id.* at 19, and "wholesale markets [also] creat[e] ... opportunities for entrepreneurs to find innovative means to supply demand response," thereby widening "the pool of potential participants." *Id.* at 21. Cf. Br. *Amicus Curiae* for EPSA, *Conn. Dept. Pub. Util. Control v. FERC*, No. 07-1375 (D.C. Cir. Sep. 2008) ("EPSA *CDPUC* Br.") (available at https://goo.gl/lsASvZ) at 15 ("The whole point of establishing a regional transmission operator ... with *federal* oversight provided by the Commission, is to have an entity focused on market-wide, regional concerns.").

Indeed, the skepticism expressed by respondents and the decision below rests on serious misunderstandings about the FERC-regulated organized wholesale markets. Precisely because those markets are structured to serve discrete system

needs (and because markets electricity are so unlike those for "steel [and] fuel," Pet. App. 8a), it is entirely common for *generating* sources to receive compensation for forbearance, when that is what is needed. Coal-fired plants that bid successfully to provide reserve service or do so in a market auction for "frequency regulation," participate and receive compensation for *reducing* output or not operating. Participants in FERC-regulated *capacity* markets do not sell "energy itself," *NRG Power Mktg. v. Me. Pub. Util. Comm'n*, 558 U.S. 165, 168 (2010), but instead receive compensation for binding, future commitments that ensure system operators there will not be shortfalls.[5]

Nor are respondents well positioned to cast aspersions on FERC's recognition that regulatory uncertainties and real-world economics can result in less-than-socially-beneficial levels of investment. That is the very reason for wholesale *capacity* markets in which respondents participate: Some measure of compensation certainty is necessary to encourage efficient levels of provision. See *Conn. Dep't Pub. Util. Control*, 569 F.3d 477, 484 (D.C. Cir.

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[5] These organized wholesale markets are fundamentally different because electricity is fundamentally different. A devotee of unregulated markets would be surprised to learn that the capacity markets from which many respondents receive payments begin with a central authority (the RTO/ISO) determining the multistate region's future needs and include "Minimum Offer Price" rules," restricting how *low* a price particular "suppliers" may accept and impose an "administratively-determined price" when the market does not clear. See FERC Staff Report AD13-7-000, Centralized Capacity Market Design Elements (Aug. 2013) at 2, 5, 24.

2009) (noting that challengers in that case had argued that "as a matter of economic theory, the supply of capacity is actually perfectly elastic and hence fixed at the long run cost of new entry" but had then "candidly conceded [that] ... this may be true in the theoretical world of economics textbooks, but is almost certainly false in the real world outside them").

II. The Public Benefits of Wholesale Demand Response Are Numerous, Extensive, and Increasingly Important

The benefits of demand response participation extend well beyond the substantial and indisputable rate impacts that support Order 745 and impelled system operators to incorporate demand response bidding more than a decade ago.

First, although respondents and the decision below depict wholesale market demand response and retail-level programs as a jurisdictional zero-sum game, the reality is starkly opposite. The investments and innovations that participation in wholesale markets encourage also benefit those retail-level programs. In fact, state officials who regulate those programs explained to FERC that eliminating "demand response['s ability] to participate in the wholesale energy market would ... adversely affect the viability of retail price-responsive demand programs." Ltr. of New Eng. Conf. Pub. Util. Comm'rs, Docket No. RM10-17, 2-3 (July 1, 2014).

Moreover, as FERC explained, demand response participation for economic reasons improves the *operational* performance of the grid. By reducing the amount of power that must be transmitted at critical

times, demand response helps diminish the risk of forced power plant outages and full-scale blackouts. And in transmission-constrained areas, where it can be literally impossible to add additional energy at peak times, demand response is uniquely able to prevent interruptions. See U.S. Dep't of Energy, National Electric Transmission Congestion Study 57 (Dec. 2009) (describing mitigating effects of "aggressive demand response" in New England).

Finally, as *Amici* can attest, the rate savings and economic and operational efficiency benefits of Order 745 are achieved while significantly *reducing* the serious environmental and public health harms that the bulk power system can inflict.

These benefits result in large part from the same basic circumstances that prompt economic demand response participation. For example, even basic time-shifting, *e.g.*, industrial users' rescheduling production to night-time hours, can produce dramatic public health benefits. Generation sources that provide marginal supply during peaks are not only *economically* inefficient; they are sometimes among the oldest and most polluting in the fleet. Avoiding resort to the 10% most-polluting natural gas-fired power plants avoids millions of metric tons of annual greenhouse gas emissions plus large quantities of nitrogen oxides, which can cause respiratory disease and premature death. See National Research Council, *et al.*, Hidden Costs of Energy 8, 119-23 (2010).[6] And because peaking plants are frequently

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[6] As is true with respect to operating efficiency, "not all power plants are created equal" in their health and environmental impacts. Pet. App. 22a (Edwards, J., dissenting).

built near major population centers, the air pollutants they discharge cause disproportionate harm to human health. *Id.* at 120-121, 363.

Moreover, when demand response resources bid successfully into capacity markets, they "not only offset the operation of power plants [and transmission lines], but also their very construction." Shen, et al., Addressing Energy Demand through Demand Response: International Experiences and Practices (June 2012) at 2. The health and ecological benefits of avoiding such construction are large. Hurley at 13.

At the other end of the life cycle, demand response resources can enable the on-schedule retirement of older, inefficient large generating plants, which are often the greatest sources of pollution, alleviating system operators' concerns about shortfalls during the time it takes to bring new capacity on line. See Scott Harvey, et al., Evaluation of the New York Capacity Market (Mar. 2013) at 164.

Demand response resources that clear organized wholesale markets commonly yield reductions in *overall* electricity consumption (users who make dispatchable commitments, through aggregators, to turn down air conditioners during peak usage periods will rarely run them more intensively during non-peak hours), which can yield even larger public health benefits. Cf. Fabio Caiazzo, et al., *Air Pollution and Early Deaths in the United States*, 79 Atmospheric Env't 198, 202 (2013). Indeed, reductions during

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For example, the National Academy of Sciences determined that the most polluting 5% of natural gas-fired power plants cause approximately *550 times* as much damage per kilowatt hour of electricity generated as the cleanest 5%. Hidden Costs at 123.

summer peaks, when demand resources are likely to be dispatched, are vital, because concentrations of harmful pollutants such as smog (or ground level ozone) are already particularly high then. See American Lung Ass'n, State of the Air 30 (2014).[7]

Especially important, demand response has significant potential to facilitate greater integration into the grid of renewable generating sources. The North American Electric Reliability Corporation estimates that renewable generation will account for nearly 17% of capacity by 2022, NERC Long Term Reliability Study at 65 (2012), and a National Renewable Energy Lab study found that solar and wind sources alone could comprise nearly half (48%) of U.S. energy supply by 2050. Renewable Electricity Futures Study p. xvii (2012). Such clean energy resources produce power inexpensively, but their output is variable and therefore can present operational challenges for power systems.

Demand response resources enable system operators to reduce load at times when those variable sources are not generating – and can also ensure their output is absorbed at times, such as with wind power

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[7] While the overall health and environmental impact of demand response is starkly positive, respondents have pointed out, and *Amici* would not dispute, that it is not universally so. Curtailments that involve "behind the meter" use of high-polluting generators can cause environmental harm, even as they relieve congestion and otherwise benefit the grid. But there plainly are more appropriate ways to target such harms than a categorical prohibition on highly beneficial wholesale market demand response. See, *e.g.*, *Del. Dep't Nat. Res. v. EPA*, 785 F.3d 1 (D.C. Cir. 2015) (rejecting broad Clean Air Act exception for diesel generators operated on a non-emergency basis).

generators overnight, when system *over*supply would be a concern. See PJM Ltr. to U.S. Dept. Energ. Building Technologies Program (April 29, 2013) at 3 (http://goo.gl/9M5qtG) (describing "[a]ggregated and controllable residential electric water heaters [that] can help grid operators ... by heating water in response to a signal that there is an abundance of wind energy on the system"). Demand response is particularly valuable both because it is a fast-acting resource and because renewable generators tend to be "added to the grid in small increments," and demand response can likewise be procured "as needed." Navigant, Carbon Dioxide Reductions from Demand Response 16 (Nov. 2014).

These environmental and health benefits are, in significant part, distinct to wholesale demand response and depend on the efficiencies that wholesale market participation provides. One utility's individual retail demand response program may not provide sufficient resources to enable the retirement of an out-of-market generator that provides reserve or peaking power both within and outside the utility's service area, but aggregation of demand response resources from around the region might suffice. Similarly, one State's price-responsive demand program may not provide enough flexibility to accomplish the reliable integration of large grid-connected wind farms that could provide clean power to customers across a multistate region. Aggregating geographically varied demand response resources allows such integration to occur.

The dramatic shifts in the mix of resources that will meet the Nation's future energy needs are occurring in conjunction with fundamental changes in

America's electricity infrastructure. The Nation's power grid, for all its strength, was a signal "engineering achievement *of the twentieth century*," see http://greatachievements.org/ (last visited Jul. 15, 2015) (emphasis added), and Congress has recognized the need for a far-reaching "modernization of the Nation's electricity transmission and distribution system," 42 U.S.C. § 17381. Demand response resources are an integral part of this more dynamic power system, one more reliant on "digital information and controls technology," *id.* § 17381(1). Indeed, as part of legislation committing to this endeavor, Congress expressly identified "[d]evelopment and incorporation of demand response," *id.* § 17381(4), as among the ingredients that "characterize a Smart Grid."

III. The Federal Power Act Does Not Prohibit, and Congress Has Affirmatively Endorsed, Demand Response Participation in FERC-Regulated Wholesale Markets

Respondents and the opinion below depict the adverse consequences of banishing demand response resources from wholesale markets as the necessary price of enforcing the "unambiguous[]" intent of the Federal Power Act. Pet. App. 14a. However "importan[t] demand response resources [are] to the wholesale market," the court concluded, "Congress left [their] regulation ... to the states, rather than to the federal government." *Id.* See also Br. Opp. 28 ("The division of regulatory authority between the federal government and the States might not produce the most efficient regulation ... but 'Our Federalism' has many virtues that extend well beyond efficiency.").

This is not so. Congress manifestly did not prohibit demand response resources from FERC-regulated markets when it enacted the Federal Power Act, and its more recent enactments unambiguously affirm the lawfulness and importance of their participation.

A. The Federal Power Act and This Court's Precedents Plainly Establish FERC's Regulatory Authority

By its terms, Order 745 is addressed only to practices in wholesale energy markets of system operators subject to FERC's jurisdiction. See 16 U.S.C. § 824(e). And the practices it targets indisputably "affect[] rates" in those markets, Pet. App. 7a. See 16 U.S.C. §§ 824d(a), 824e(a). Order 745's LMP compensation rule, as Judge Edwards pointed out, applies *only* in circumstances where it reduces costs for those who purchase energy at wholesale. *Id.* 40a.

Under this Court's governing precedents, that should have been the "end of the matter," *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 842 (1984). See also *City of Arlington v. FCC*, 133 S. Ct. 1863, 1874-75 (2013).

As petitioners explain, the D.C. Circuit's finding of a "clear" – and dispositive – articulation of "[c]ongressional intent" in Section 201(a) of the Federal Power Act not only slights the powers over "practice[s] ... affecting ... rates" that Congress affirmatively conferred in Sections 205 and 206, but it disregards this Court's case law treating this "precise reserved state powers language in § 201(a)," as "prefatory," *New York*, 535 U.S. at 22, and merely

descriptive of the Act's *other* express reservations – which are themselves "strictly construed." *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 672, 679 (1954) (citation omitted).

But even if Section 201(a) were substantive rather than "mere[ly] ... declara[tory]," 535 U.S. at 22, it could not meet the stringent standard affirmed in *City of Arlington*. The opinion below nowhere explained how Congress's generic reference to state-regulated "matters" could be said to "sp[eak] directly" to the "precise" subject that Order 745 addresses, 133 S. Ct. at 1878 (quoting *Chevron*), *i.e.*, ISO/RTO practices for compensating demand response resources that clear organized wholesale energy markets, and to have resolved that question against FERC authority – even when those practices directly affect wholesale rates. Like the "unbundled transmissions" that *New York* held outside the Section 201(a) language, demand response, RTOs, and organized wholesale markets are, from the perspective of the FPA, "a recent development." 535 U.S. at 21. As the Court explained, "there was neither state nor federal regulation [in 1935] of what did not exist." *Id.*

The D.C. Circuit's legal error was similar to, but significantly worse than, the one the Court corrected in *Oneok*. As in that case, the court here mistakenly assumed that the FPA requires that every "activity" – identified at the highest possible level of generality – must be assigned to a single field within which jurisdiction is exclusive. See *id.* But the Ninth Circuit decision in *Oneok* at least addressed a practice – manipulation of information about sale prices in natural gas markets – that the parties agreed was

"single" and unitary. *Id.* The majority opinion here addressed a jurisdictional conflict of its own manufacture. The opinion disregarded the "practices" at which Order 745 actually is "directed," 135 S. Ct. at 1600, *i.e.*, practices in organized *wholesale* markets by system operators subject to FERC regulation, based solely on the *ipse dixit* – in the face of market participants' contrary understanding – that demand response is an intrinsically unitary, "retail" product.

Indeed, while *Oneok* counsels "cautio[n]" before pronouncing broad "matters" or categories of activity off limits to *either* state or federal regulatory authority, 135 S. Ct. at 1599, under the FPA, a decision to eject *federal* regulation from a field surely requires heightened restraint. There is no constitutional doctrine of *reverse* field preemption, and as petitioners emphasize, the FPA grants FERC, but not a state regulator, authority over practices *affecting* rates under its jurisdiction. See EPSA *CDPUC* Brief at 6 (rejecting as "an upside-down view of the statut[e]" an argument that States have exclusive authority to regulate practices that "merely 'affect' generation facilities"). As in *New York*, where the only disagreement within the Court concerned whether FERC, in the face of State opposition, should have been *more* assertive in exercising jurisdiction, see 535 U.S. at 28 (Thomas, J., dissenting in part), the only division in *Oneok* concerned whether FERC's "practices affecting" jurisdiction precluded all (or only some) *state* regulation. See 135 S. Ct. at 1608 (Scalia, J., dissenting). No Justice suggested that the States' "'long history of providing 'common-law and statutory remedies against monopolies and unfair business practices'" affecting retail rates, *id.* at 1601 (citation

omitted), might divest *FERC* of its power to regulate wholesale markets.

B. Congress Has Expressly Endorsed Demand Response Participation in Wholesale Markets

The decision below pointed to "no evidence" that if "the 1935 Congress" had "foreseen the developments to which FERC has responded, Congress would have objected to FERC's interpretation of the FPA," 535 U.S. at 23. But the decision's stark errors in construing that statute are especially startling in view of the series of twenty-first century legislative enactments, coinciding with FERC's activity in this field, that *do* speak directly to the question and that express unambiguously Congress's *approval* of demand response participation in the markets overseen by FERC.

The opinion below discussed the most prominent of these provisions, EPAct 2005 § 1252(f), announcing that "review of [the provision's] statutory text," Pet. App. 13a (citation omitted), along with its title and the content of immediately neighboring provisions, reinforced the majority's thesis that demand response belongs exclusively to the "retail market," subject to state regulation only. *Id.* 14a.

That is untenable. To be sure, the first clause of the provision, as the court noted, contemplates "'encourag[ing]' and 'facilitat[ing]'" certain retail-level efforts, Pet. App. 13a – activities not inconsistent with the hypothesized regime, where demand response resources are statutorily forbidden from wholesale markets; and a neighboring provision does include language providing for FERC's "technical assistance" to demand response initiatives at the State level. See

Pet. App. 13a-14a (citing § 1252(e)); accord Br. Opp. 27 (asserting that this "context" "makes clear" that Congress was focused only on encouraging "smart metering" technology under the purview of state regulators).

But the statutory text that immediately follows the clause the court parsed discloses that Congress expressly endorsed and sought to expand demand response resources' "*participation* in energy, capacity, and ancillary services markets" – *i.e.*, the familiar triad of FERC-regulated organized wholesale markets. And the provision's next sentence establishes a "further national policy," that the benefits of participation in those markets should be shared broadly with all customers in "the same *regional electricity entity*," EPAct 2005 § 1252(f) (emphasis added), a term that fits RTOs and ISOs to a T, but could not describe State-regulated utilities that operate retail demand response programs.

The majority opinion's observation that the EPAct 2005 provision is a "policy statement, ... not [a] delegation[] of regulatory authority," *id.* 12a (quoting *Comcast Corp. v. FCC*, 600 F.3d 642, 654 (D.C. Cir. 2010)), and, as such, could not "nullify a clear and specific grant of jurisdiction" *id.* (quoting *New York*, 535 U.S. at 22), is irrelevant. FERC did not purport to rely – and did not need to rely – on any authority beyond its power over "practice[s] ... affecting ... rate[s]" conferred by Sections 205 and 206, affirmative grants that are coextensive with the Commission's authority over rates themselves. Indeed, the "mere policy declaration" language the opinion quoted in denigrating Section 1252(f) came from this Court's description of the provision –

Section 201(a) – that supplied the linchpin for the D.C. Circuit's jurisdictional ruling.

But policy statements like § 1252(f) do cast light on "the contours of [an agency's] statutory authority," *Comcast*, 600 F.3d at 654, and they are not an exception to the judicial responsibility to give effect to the plain meaning of statutes Congress enacts into law – and to read statutes so as "to make sense rather than nonsense out of the *corpus juris*," *W. Va. Univ. Hosps., Inc. v. Casey*, 499 U.S. 83, 101 (1991). It would be "nonsense" to construe the FPA's 80-year-old generically-worded declaration as requiring that demand response resources be *ejected* from organized wholesale markets, when Congress announced a national policy to enable their fuller "participation."

As for "context," the bare fact that certain surrounding provisions relate to federal assistance to States and retail-market initiatives supports FERC's understanding no less than respondents'. Nothing in Order 745 contemplates that demand response would or should participate *exclusively* in wholesale markets. Rather, FERC recognized, as do state regulators and Congress, that wholesale market participation is consistent with innovative and vibrant retail demand response programs. See p.13, *supra*.

Other proximate provisions in fact push against the D.C. Circuit's "retail only" theory. For example, Congress's reference to measures "ensur[ing] that ... demand resources are provided equitable treatment ... relative to the resource obligations of any load-serving entity," in "regional transmission ... operations," EPAct 2005 § 1252(e)(3)(E), is naturally understood as referring to wholesale markets, where

demand response resources compete with generators, to meet those obligations. Likewise, adjacent provisions directing the Secretary of Energy and FERC to report to Congress concerning, *inter alia*, the "identifi[able] and quantif[iable] ... national benefits of demand response," "existing demand response programs," and "the annual resource contribution of demand resources," *id.* §§ 1252(d)(3) and (e)(3), have been understood since their enactment to address wholesale, as well as retail demand response. The Energy Secretary's 2006 report, Benefits of Demand Response in Electricity Markets and Recommendations for Achieving Them, discussed wholesale markets extensively. See pp. 13-16, 74-80. So did FERC's congressionally-mandated 2006 report, which, after explaining that "at [the] wholesale level, the impetus comes from independent system operators (ISOs) or regional transmission organizations (RTOs)," described "demand-bidding programs" operated by NYISO and ISO-NE, where customers "bid a price at which they would be willing to curtail their load ... on a day-ahead basis." FERC Staff Report, Assessment of Demand Response and Advanced Metering (Aug. 2006) ("2006 Assessment") at 6, 50. See also *id.* 49-51 (describing "[c]apacity market programs ... typically offered by wholesale market providers such as ISOs/RTOs" and programs "allowing demand response to participate in ancillary-service markets").

The policy declarations codified in EPAct 2005 do not stand alone. Other provisions of the U.S. Code are equally irreconcilable with the thesis of a "clear[] ... Congressional intent," Pet. App. 8a, to exclude demand response from wholesale markets. For example, 10 U.S.C. § 2919 authorizes the Secretary of

Defense "to participate in demand response programs ... conducted by," *inter alia*, "[a]n independent system operator" or "[a] third party entity (such as a demand response aggregator or curtailment service provider) implementing demand response programs on behalf of an ... independent system operator." *Id.* § 2919(a)(2), (4). And provisions like those discussed above, authorizing federal "smart grid" funding of research into "means for demand response ... to provide ancillary services," 42 U.S.C. § 17384(a)(2), would make no sense if demand response were confined by law to the "retail market."

IV. FERC's Understanding of the Allocation of Regulatory Authority is Reasonable and Judicious

Once the lawfulness of demand response participation in wholesale markets is settled, the basic regime Order 745 embraces – with retail demand response matters subject to state regulation and wholesale market practices under FERC's oversight – is unassailably reasonable and correct.

It could not seriously be claimed, for example, that Congress meant for the subject of Order 745 – the level and means of compensation paid by RTOs to demand response resources that clear their *wholesale* energy markets – to be a matter of *state* regulation. And the notion that demand response resources might participate in wholesale markets without any regulation, state or federal (or that compensation practices, alone among matters directly affecting wholesale rates, would be exempt from all government oversight) – is equally a nonstarter: "[W]hen a dispute arises over whether a given transaction is within the scope of federal or state

regulatory authority, we are not inclined to approach the problem negatively, thus raising the possibility that a 'no man's land' will be created." *Fed. Power Comm'n v. La. Power & Light Co.*, 406 U.S. 621, 631 (1972) (citation omitted).

Respondents' objections, waving the flag of federalism, are peculiar. Recognizing that Order 745 does not regulate retail sales of electricity or retail demand response programs and does not purport to preempt state law of any kind, they nonetheless insist that participation in FERC-regulated wholesale markets impinges on State prerogatives, even asserting that Order 745 "effectively" sets retail market prices, by raising the "lost opportunity cost" of purchasing electricity at the state-regulated rate. Br. Opp. 9, 24.

FERC's Order provides the first and essentially complete answer: a State that has the objections hypothesized – or any others – need not allow resources within its jurisdiction to participate in organized wholesale markets.[8] See Joint States Br. 15-16.

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[8] Notably, certain respondents, advancing a muscular view of the Commission's authority over practices affecting rates in a different case, have argued that States' "latitude to retreat from the federal wholesale market entirely if they no longer believe that it is serving their interests" is sufficient protection. Br. Opp., *Nazarian v. PPL EnergyPlus LLC*, No. 14-614 (Feb. 2015) at 2. Order 745's regime provides something much more nuanced and therefore more potent: States may *retain* the benefits of wholesale markets – indeed they may retain the benefits of wholesale demand response (so long as other States in their regional system permit participation). That such free-riding is not a problem in the real world is powerful confirmation

The further answer comes from actual state regulatory authorities, which in lopsided numbers, supported FERC's jurisdiction in this case, emphasizing the myriad ways wholesale market participation *benefits* state-regulated demand response programs and broader state policy interests. See p. 16, *supra*. It is unsurprising that States would prefer FERC's regime, which enables them to decide for themselves whether these benefits are in their interest, to respondents' rule, which, in the name of federalism, denies States the power of choice and imposes the widely disfavored option. That States have aligned in favor of FERC's jurisdiction shows in itself how different this case is from recent ones where the balance between State and federal interests was genuinely under pressure.[9]

For its part, the opinion below explained its ruling in terms of prophylaxis, *i.e.*, that depriving FERC authority over *wholesale* market practices was necessary to ensure that "price-responsive demand [remains] untouched ... in the future." Pet. App. 10a. That vigilance seems truly unwarranted here: Not

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that retail programs can be *strengthened* by wholesale market participation. See p. 13, *supra*.

[9] Respondents' attempts to make Order 745 look like retail rate-setting entail hiding a great deal inside the word "effectively." The "lost opportunity costs" of purchasing energy at retail include not only the wholesale energy market demand response compensation at issue here, but *any* demand response payment available in any wholesale market – and every incentive, from whatever source, to consume less. In fact, opportunity costs extend to anything that lowers the price of *any* good that could be bought with funds used to purchase electricity.

only does Order 745 (and the understanding of FPA authority on which it rests) leave retail demand response programs to state regulation, FERC defers to the States as to their residents' *wholesale market* participation. This sheep comes as a sheep. Cf. *Morrison v. Olson*, 487 U.S. 654, 699 (1988) (Scalia, J., dissenting).

The decision's depiction of Order 745 as improperly "luring" demand response from its rightful place in "the retail market" "to create [FERC] jurisdiction," Pet. App. 8a, 11a, is similarly untenable. Order 745 regulates practices by entities *already* subject to FERC regulation. And wholesale demand response participation did not originate with Order 745; its impetus came substantially from ISOs and RTOs, who received FERC's permission to allow demand response bidding in their auctions in the early 2000s. See 2006 Assessment at 6. (Some of these paid LMP compensation, as did a number of RTOs at the time Order 745 was adopted, Pet. App. 63a-65a).

FERC's restrained resolution of the jurisdictional question here is not only reasonable, but exemplary. Section 201(a) does not, as this Court has held, impose an independent substantive limit on the FPA's broad grants of power, let alone enact a rule of "reverse preemption" of the sort the D.C. Circuit supposed. And the fundamental changes in the electricity universe over the past four decades have, as respondents themselves have elsewhere explained, altered the state-federal balance: "as the Nation's energy markets become more complex and regional, the Commission's regulation of wholesale rates and services ... have an increasing likelihood of

incidentally affecting issues of local concern," EPSA *CDPUC* Br. 13.[10] But as FERC recognized in Order 745, the interests served by Sections 205 and 206 need not be pursued at all costs; nor need the values underlying Section 201(a) be disregarded. Cf. *NARUC v. FERC*, 475 F.3d 1277, 1281 (D.C. Cir. 2007) ("Any proper construction of § 201 must give effect to both FERC's jurisdiction over certain transactions occurring over public utilities and to § 201(f)'s exclusion of state facilities."). On the contrary, fundamentally important developments and initiatives relating to the power system are increasingly occurring at the State and local level, presenting regulatory challenges that will benefit from coordination, rather than jurisdictional brinksmanship, and from the "[c]autious" approach, toward preemptive authority (in either direction) that FERC followed here. See *Oneok*, 135 S. Ct. at 1599.

V. The D.C. Circuit's Alternative Holding Should Be Reversed

The Court of Appeals also "erred in holding [Order 745] is arbitrary and capricious." FERC Br. I. The decision below ostensibly confined that alternate holding to FERC's *procedural* obligation to respond directly to the points raised in Commissioner Moeller's dissent, a ruling, as FERC demonstrates, that cannot stand. The Commission gave a comprehensive, reasoned response to the dissent,

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[10] Other respondents recently offered a much harder-edged version of this point, arguing that States, "by rendering their local electricity markets largely dependent on the federally regulated wholesale market, [have] necessarily ceded much of their traditional regulatory authority." *Nazarian* Br. Opp. 6.

which had consisted largely of endorsing the principal objection raised by commenters, that FERC made the wrong choice by selecting LMP (subject to the net benefits test), rather than "LMP-G," as the compensation metric. See FERC Br. 57-60; Richard J. Pierce, *A Primer on Demand Response and A Critique of FERC Order 745*, 3 Geo. Wash. J. Energy & Envtl. L. 102, 108 (Winter 2012) ("[I] would have joined [the dissenting] opinion had I been a member of FERC. Yet, if I were instead a judge reviewing Order 745, I would uphold FERC's rule on the basis that the agency provided reasoning adequate to support each step in its decision-making process.").

But to the extent the ruling below is instead treated as a de facto acceptance of respondents' objections (albeit one not filtered through the lens of requisite deference), it should not stand. As explained above, Order 745 is fundamentally an application of principles common to almost every organized wholesale market auction under FERC's jurisdiction: that diverse resources that are comparably situated with respect to the market or system benefit should be treated comparably ("equitabl[y]," in Congress's phrasing); that the same compensation generally is accorded to all resources that clear the market, rather than, *e.g.*, one that takes account of their costs; and that markets' structural shortcomings (including barriers to entry and the potential for manipulative behavior) should be accounted for.

Respondents' objections principally entail disputing whether demand response and generating resources really are sufficiently comparable, along with an ostensible demonstration that, as a matter of economic theory, LMP "overcompensates" demand

response resources, raising the specter of participation (and curtailment of economic activity) above the "optimal" level. Pet. App. 15a-16a. But even airtight theoretical demonstrations often founder under real-world conditions, see *CDPUC*, 569 F.3d at 484 (noting that a proposition arguably "true in the theoretical world of economics textbooks, [was] ... almost certainly false in the real world outside them"); and it would be hard to read Congress's multiple enactments on the subject as viewing the problem with demand response as one of *too much* participation.

And FERC surely was correct that any inquiry into windfalls or "overcompensation" would be a significant departure from its bedrock approach: *Generating* resources that submit zero-dollar bids are paid full LMP compensation, notwithstanding their expressed willingness to accept less. (Indeed, for nuclear plants, marginal cost is sometimes described as negative, because shutting down would be more expensive than dispatch.). See Pet. App. 101a-102a. Offering demand response, in contrast, entails often-costly investments in metering, control, and verification technology.

And while respondents have arguments why demand response resources are not comparable – or not *sufficiently* so to warrant comparable treatment – such judgments are within an expert agency's broad discretion. In that regard, respondents cannot deny that demand response resources perform the basic function of balancing demand and supply as generators do. And, as *Amici* explained in comments to FERC, it should not be assumed that dissimilarities between demand response and

generation sources cut uniformly in the latter's favor. There are many situations in wholesale markets where demand response performs *better* than do generators – *e.g.*, in ancillary service markets, where highly developed demand response resources are "prized" for their reliability, swiftness, and flexibility, see Peter Cappers, et al., Market and Policy Barriers for Demand Response Providing Ancillary Services in U.S. Markets 2 (March 2013). And, as explained above, demand response resources not only ensure more reasonable prices when markets are under pressure, but avoid significant costs – in terms of pollution and system stress – that should make them preferable to comparably priced generation.[11]

Conclusion

The judgment of the court of appeals should be reversed.

Respectfully submitted,

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[11] To be sure, allowing demand response participation does not perfectly internalize these costs, but FERC was permitted to consider them, precisely in the manner it did, in determining that these resources are sufficiently comparable and that LMP compensation was reasonable and nondiscriminatory. Cf. *Michigan v. EPA*, 576 U.S. __ (June 29, 2015), Slip Op. 7 ("'cost' includes more than the expense of complying with regulations ... [and includes] harms ... to human health or the environment").

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APPENDIX

DECRIPTION OF *AMICI CURIAE*

Conservation Law Foundation (CLF) is a New England non-profit, public-interest environmental advocacy organization with offices and members in the states of Maine, New Hampshire, Vermont, Rhode Island and Massachusetts. A substantial component of CLF's work is directed at influencing energy policy in order to ensure that the region achieves its collective goals of reducing greenhouse gas emissions and avoiding or limiting the impacts of climate change. The role of demand-side resources, including demand response, as an energy resource is a central component of this work. CLF is a voting NEPOOL governance participant. In that role, CLF participates actively in the market-design initiatives of ISO-NE, including advocacy for the inclusion of demand response resources in the wholesale energy markets. CLF was directly involved in the NEPOOL stakeholder process associated with FERC's Order 745 and was an intervenor and commenter in the FERC review of ISO-NE's Order 745 compliance filing.

Environmental Defense Fund ("EDF") is a national non-profit, non-governmental, non-partisan organization, representing more than 300,000 members and supporters. Since 1967, EDF has worked to preserve the natural systems on which all life depends. Guided by science and economics, we find practical and lasting solutions to the most serious environmental problems. EDF advocates policies that protect human health and the environment and that support a strong economy by ensuring that cost-effective clean energy resources

have open access to our nation's electricity markets. EDF participated as amicus in support of FERC Order 745 in the case below and participated in the underlying FERC rulemaking.

The Environmental Law and Policy Center of the Midwest ("ELPC") is a not-for-profit public interest environmental legal advocacy organization that conducts strategic advocacy campaigns to improve environmental quality and protect our natural resources through the advancement of clean air, clean transportation and clean energy policies at the regional and national levels. ELPC promotes the deployment of clean energy resources including demand response.

Natural Resources Defense Council (NRDC) is a national nonprofit organization with approximately 300,000 members. NRDC is committed to the preservation and protection of the environment, public health, and natural resources. Addressing the climate change crisis is one of NRDC's top institutional priorities. As part of its work in this arena and to curb air pollution, NRDC has been actively involved in advocacy related to demand response, energy efficiency, and renewable energy.

Sierra Club is a national organization founded in 1892 with more than 60 chapters and over a million members and supporters. Sierra Club's purpose is to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments. Sierra Club works to address

the environmental and public health problems associated with energy generation, and actively advocates for demand-side management and renewable energy resources.